

Table 12.5 Methane Emissions, 1980-2000

(Million Metric Tons of Methane)

Year	Energy Sources					Waste Management			Agricultural Sources					Industrial Processes	Total
	Natural Gas and Petroleum Systems	Coal Mining	Transportation	Stationary Combustion	Total	Landfills	Wastewater Treatment	Total	Enteric Fermentation ¹	Animal Waste	Rice Paddies	Crop Residue Burning	Total		
1980	4.42	3.05	0.28	0.81	8.56	9.85	0.14	9.99	5.47	R3.03	0.48	R0.04	R9.02	0.13	R27.70
1981	5.02	2.80	0.27	0.82	8.92	10.07	0.14	R10.20	5.56	R2.88	0.54	0.04	R9.03	0.14	R28.29
1982	5.05	3.23	0.27	0.88	9.42	R10.21	0.14	R10.35	5.50	R2.78	0.47	0.04	R8.79	0.10	R28.66
1983	5.01	3.02	0.27	0.86	9.17	R10.41	0.14	R10.55	5.46	R2.84	0.31	0.03	R8.64	0.11	R28.46
1984	5.12	3.60	0.26	0.86	9.85	R10.55	0.14	R10.70	5.33	R2.76	0.40	0.04	R8.53	0.11	R29.19
1985	R5.17	3.88	R0.26	0.84	R10.15	R10.67	0.14	R10.81	5.27	R2.76	0.36	0.04	R8.43	0.11	R29.50
1986	R5.06	3.73	R0.26	0.82	R9.86	R10.69	0.15	R10.83	5.13	R2.70	0.34	R0.04	R8.20	0.10	R29.00
1987	R5.16	4.01	R0.25	0.80	R10.22	R10.92	0.15	R11.07	5.08	R2.74	0.33	R0.04	R8.19	0.11	R29.59
1988	R5.31	3.93	R0.25	0.83	R10.32	R10.98	0.15	R11.13	R5.01	R2.76	0.41	0.03	R8.21	0.12	R29.78
1989	R25.47	3.96	R0.25	0.86	R10.54	R11.08	0.15	R11.23	5.11	R2.66	0.38	0.04	R8.19	0.12	R30.08
1990	6.87	R4.22	0.25	0.56	R11.90	R11.21	0.15	R11.36	5.16	2.69	0.40	0.04	R8.29	0.12	R31.67
1991	7.10	R4.08	0.23	0.59	R12.00	R11.07	0.15	R11.23	5.30	2.79	R0.40	R0.04	8.52	0.11	R31.86
1992	7.12	R3.99	0.24	0.62	R11.97	R10.91	0.15	R11.07	5.39	2.81	0.44	0.04	8.68	0.12	R31.84
1993	7.05	R3.41	0.24	0.54	R11.23	R10.68	0.16	R10.84	5.46	2.87	0.40	R0.04	R8.77	0.12	R30.96
1994	7.03	R3.47	0.24	0.53	R11.27	R10.39	0.16	R10.55	5.59	2.95	0.47	R0.05	R9.06	0.13	R31.00
1995	7.11	R3.63	0.25	0.58	R11.58	R10.17	0.16	R10.33	5.61	2.95	0.44	R0.04	R9.04	0.13	R31.08
1996	7.11	R3.24	0.24	0.58	R11.17	R9.65	0.16	R9.81	5.46	R2.92	0.40	0.04	8.83	0.13	R29.94
1997	7.26	R3.24	0.24	0.44	R11.18	R9.19	0.16	R9.35	5.42	R3.07	0.44	0.04	8.98	0.13	R29.63
1998	R7.04	R3.20	0.24	0.39	R10.88	R8.70	0.16	R8.86	5.41	3.09	R0.46	0.04	9.00	0.13	R28.88
1999	R7.24	R3.03	R0.26	R0.42	R10.94	R8.42	0.16	R8.59	R5.43	3.03	R0.49	0.04	R9.00	0.13	R28.66
2000 ^P	7.43	2.89	0.25	0.44	11.01	7.82	0.17	7.99	5.54	3.05	0.43	0.05	9.06	0.14	28.19

¹ Animals such as cattle, buffalo, sheep, goats, and camels emit methane as a product of digestion.

² There is a discontinuity in this time series between 1989 and 1990 due to the expanded coverage of the emissions from oil production beginning in 1990.

R=Revised. P=Preliminary.

Notes: • Emissions are from anthropogenic sources. Anthropogenic means produced as the result of human activities, including emissions from agricultural activity and domestic livestock. Emissions from natural sources, such as wetlands and wild animals, are not included. • Estimates of methane emissions are, in general, highly uncertain. The level of precision is probably on the order of 30 to 50 percent. For additional information, see "Appendix C, Tier 1 Uncertainty Analysis of Emissions Estimates" in the source

report. • Under certain conditions, methane may be produced via anaerobic decomposition of organic materials in landfills, animal wastes, and rice paddies. • Because inventory methods for greenhouse gases are currently being developed, data are frequently revised on an annual basis in keeping with the latest findings of the international scientific community. • Totals may not equal sum of components due to independent rounding.

Web Page: <http://www.eia.doe.gov/environment.html>.

Sources: • 1980 -1989—Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States*, annual reports. • 1990 forward—EIA, *Emissions of Greenhouse Gases in the United States, 2000* (November 2001), Table 14.